Quality Control

### Work Order ID 63120

Thursday, October 21, 2010 1:29:46 PM

Memo



Page 1

Item ID: D3529-1 Accept Setup Start **Revision ID:** Stop Item Name: Bearpaw Start Oty: 8.00 **Start Date:** 10/21/2010 **Cust Item ID: Required Date: 10/28/2010** Req'd Qty: 8.00 **Customer:** Reference: Start Run Date: 10-0-21 Tooling: **Process Plan:** Approvals: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ **Operation** Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description **Run Hours** Code Qty **Qty** Number Stamp **Draw Nbr Revision Nbr** D3529 Rev A 110 0.00 FLOW WATER JET 1310-10 75 Waterjet 0.00 Memo FLOW CNC Waterjet CUT BLANK AS PER FILE D3529-1BLANK b.ASL 10/11/15 120 0.00 HAAS CNC VERTICAL MACHINING #1 HAAS 1 0.00 Memo HAAS CNC vertical machine #1 1-Inspect material for defects or damage prior to machining 2-Machine as per Folio FA645 and Dwg D3529 3-Deburr A.A/JL blules 130 QC2- Inspect parts off machine FAI/FAIB QC 0.00

Dart Ae	rospace	Ltd							Ť
W/O:			WC	RK ORDER CHANGE	S				· . · · · · · · · · · · · · · · · · · ·
DATE	STEP	PRO	PROCEDURE CHANGE					Approval Chief Eng / Prod Mgr	Approval QC Inspector
						A			
Part No	:	PAR #:	Fault Cate	jory:	NCR: Yes	No DQ	A:	Date: _	
	Re	esolution:	Disposition	າ:	QA: N/C	Closed:		Date: _	
NCR:	13311111		WORK ORD	R NON-CONFORMA	NCE (NC	R)			
		Description of NC		Corrective Action Section	on B	Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sec	tion C	Chief Eng	QC Inspector
	1								

### Work Order ID 63120

Thursday, October 21, 2010 1:29:46 PM



Page 2

Item ID:

D3529-1

Accept



Setup Start



**Revision ID:** 

Item Name: Bearpaw

**Start Date:** 10/21/2010

**Required Date: 10/28/2010** 

Start Qty: 8.00

Req'd Qty: 8.00



**Cust Item ID: Customer:** 

Reference:

Approvals:

Process Plan:

Date:

**Tooling:** 

Date:

**Tool ID** 

Run

Start

Stop

Stop



QC: \_\_

Date: \_\_\_\_\_

SPC (Y/N):

Date:

Tool # Plan

Code

Otv

Accept

Reject Qty

Reject

Insp. Number Stamp

Sequence ID/ **Work Center ID** 

140

Quality Control

Operation Description

QC8- Inspect parts - second check

Memo

Set Up/ **Run Hours** 

0.00

0.00 and 10/11/16

150

Packaging Packaging

Identify as per dwg & Stock Location:

6 3149

0.00

0.00

160

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

Memo

0.00

MF 10-11-16

W/O:			WO	RK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:							
	Res	olution:	Disposition	);	_ QA: N/C C	Closed:		Date: _	
NCR:		,	WORK ORDE	R NON-CONFORMA	NCE (NC	R)			
DATE	CTED	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description  Chief Eng	Sign Date	& Sect	ion C	Chief Eng	QC Inspector
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-						,			

## **Picklist Print**

Thursday, October 21, 2010 1:29:50 PM

Work Order ID: 63120

Parent Item:

D3529-1

Parent Item Name: Bearpaw



Start Date: 10/21/2010

**Required Date:** 10/28/2010

Page 1

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP Rev:A New Issue 06-06-28 JLM

IPP Rev:B New Manufacturing Method 08-11-27 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			100	sf	24.3060	1.265	10.65263			
										Į.	810-10-	- 24	

UHMW 1" Black

<b>Location</b>	Loc Oty	Loc Code	
MAT	24.306		
114624	8.8		
115325	15.506		
115955			115958

W/O:			V	ORK OF	RDER CHAN	GES					
DATE	STEP	PROCE	DURE CH	IANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							:				
Part No		PAR #:	Fault Ca	tegory:		NCF	l: Yes	No DQ	A:	Date:	
		esolution:									
NCR:		WC	ORK OR	DER NO	N-CONFORM	IANCE	(NCR	)			
DATE	STEP	Description of NC				ection B	O: 0		cation	Approval	Approval
	0.2.	Section A	Initial Chief Eng	Ac	tion Description Chief Eng		Sign & Date	Sect	ion C	Chief Eng	QC Inspector
							**				-
		·									

DART AEROSPACE LTD	Work Order:	43/20
Description: Bearpaw	Part Number:	D3529-1
Inspection Dwg: D3529 Rev: A	·	Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

	spection Sheet wing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Α	5.50	+/-0.030	5.504			1811-3	
В	0.07 x 45°	+/-0.030 x 0.5°	-065 X45°			~	
С	R0.25	+/-0.030	-250			R-G	
D	0.250	+/-0.010	252	//		mic JL-H	
E	0.625	+/-0.010	-626			vern JL3	
F	0.950	+/-0.010	.952				
G	1.63	+/-0.030	1.620			n	
Н	12.14	+/-0.030	12.140			m-tape	
I						4	
J	5.70	+/-0.030	5695			vernul-3	
K	0.375	+/-0.010	1.377	//		_	
L	0.525	+/-0.010	.525			mic CNC118-121	
М	0.13 x 45°	+/-0.030 x 0.5°	0.130x45°	~			
N	R0.50	+/-0.030	.500			R-G	
0	12.76	+/-0.030	12.76			m-taxe	
Р	3.38	+/-0.030	3.375			Vern )L3	
Q	3.75	+/-0.030	3.753				
R	5.187	+/-0.010	5.187			\$	
S	5.25	+/-0.030	5-250		/		
Т	7.13	+/-0.030	7.125			4-(1	
U	Ø0.260	+0.006/-0.001	\$0.259	/		Vern	Vern GA-01
<b>\</b>	0.30	+/-0.030	0.310	/		D-6	6A - 08
W	0.93	+/-0.030	0.923	<b>\</b>		Vern	GA-01
Х	1.30	+/-0.030	1.30			vernul-3	

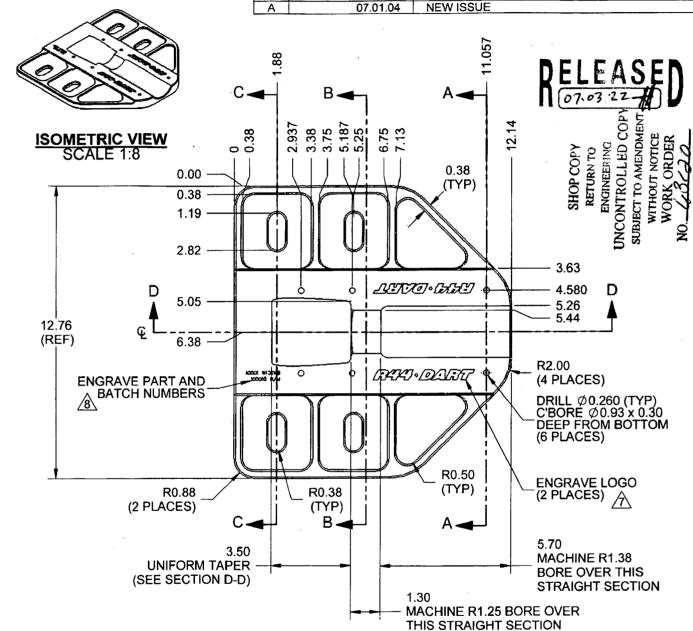
Measured by:	Audited by:	ind	Prototype Approval:	N/A
Date:  0 11/15	Date:	10/11/11	Date:	N/A

	nange	Revised by	Approved
A 07.05.01 Nev	ew Issue	KJ/JLM 1,A	
B 08.05.06 Dim	mension I removed	KJ/DD 🛠	7

W/O:			W	ORK ORDER CHANGE	S				
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No		PAR #:	Fault Cat	egory:	NCR: Yes	No <b>DQ</b>	A:	Date:	
		esolution:	•						
NCR:	CR: WORK ORDER NON-CONFORMAN			NCE (NCF	R)				
DATE	STEP	Description of NC		Corrective Action Section		Verifi	cation	Approval	Approval
	0121	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Sect	ion C	Chief Eng	QC Inspector
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5 - 1 or 1									







#### **D3529-1 R44 BEARPAW**

#### NOTES:

- 1) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.00 THICK (MACHINE TO 0.950)
- 2) FINISH: NONE
- 3) PART IS SYMMETRIC ABOUT Q
  4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  5) ALL DIMENSIONS ARE IN INCHES

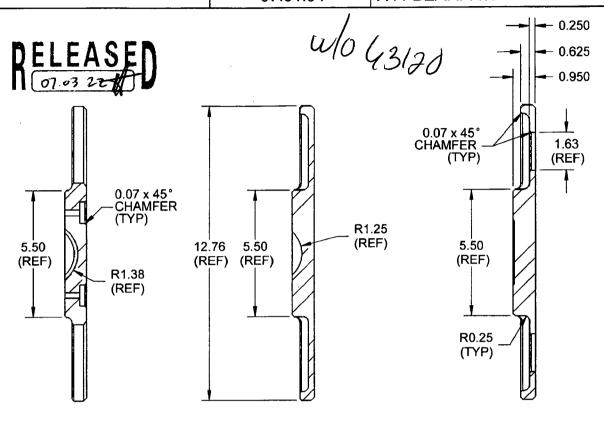
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX 7) ENGRAVE LOGO TO MAX DEPTH OF 0.012 AT LOCATION SHOWN 8) ENGRAVE PART AND BATCH NUMBERS TO MAX DEPTH OF 0.010 AT LOCATION SHOWN

#### **COPYRIGHT © 2007 BY DART AEROSPACE LTD**

W/O:		WORK ORDER CHANGES											
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Da	ite Qty	Approval Chief Eng /	Approval QC Inspector				
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Part No:		PAR #:	Fault Cate	gory:	_ NCR: Ye	s No	DQA:	_ Date: _					
	Re	esolution:	Disposition	n:	QA: N/C	Closed	d:	Date: _					
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DATE	STEP	Description of NC			tion B		/erification	Approval	Approval				
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sigi Da	n &	Section C	Chief Eng	QC Inspector				
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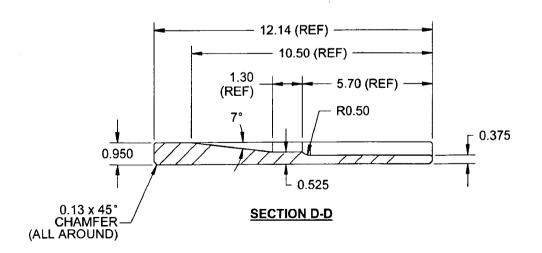
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					
CHECKED APPROVED		DRAWING NO. D3529	REV. A SHEET 2 OF 2				
DATE 07	.01.04	TITLE R44 BEARPAW	SCALE 1:4				



**SECTION A-A** 

SECTION B-B

**SECTION C-C** 



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W/O:			WO	RK ORDER CH	ANGES					
DATE STEP		PROCEDURE CHANGE				Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	):	PAR #·	Fault Cated	norv:	NC	R. Ves	No DO	Δ.	Date:	
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NCR:			WORK ORDE	R NON-CONFO	ORMANC	E (NCF	R)			
DATE	STEP	Description of NC Section A	Corrective Action Section		Section B			Verification	Approval	Approval
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